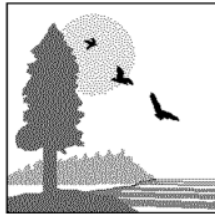


CALIFORNIA STATE LANDS COMMISSION

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**NOTICE OF PREPARATION OF
A DRAFT ENVIRONMENTAL IMPACT REPORT
AND
NOTICE OF PUBLIC SCOPING MEETING**

SCH# 2011041052

CSLC Ref Files: EIR No. 756; R19710;
W30182; W26420

Date: April 15, 2011

To: Public Agencies and Interested Parties

Project: **Broad Beach Restoration Project.** The Trancas Property Owner's Association proposes to address the extensive erosion at Broad Beach in the city of Malibu, Los Angeles County, through beach and sand dune restoration. The proposed Project would include beach widening and replenishment using sand dredged and transported from an offshore source and/or transported from an onshore source, sand dune building and restoration, and burying of an existing temporary emergency revetment.

Applicant: Trancas Property Owner's Association (TPOA)¹

Mr. Zan Marquis (TPOA)
Marquis Property Company, Ltd.
Pt. Dume Village
29169 Heathercliff Road, Ste. 212
Malibu, CA 90265

Mr. Ken Ehrlich (TPOA legal counsel)
Jeffer, Mangels, Butler & Mitchell LLP
1900 Avenue of the Stars, 7th Floor
Los Angeles, CA 90067

Location: Broad Beach is located in the city of Malibu, Los Angeles County. The Project area is located west of Broad Beach Road (which runs parallel to Pacific Coast Highway) and is comprised of shoreline fronting approximately 109 homes, spanning from Lechuza Point to Trancas Creek.

¹ The TPOA and neighboring property owners are in the process of forming a Geological Hazard Abatement District (GHAD) to fund all Project-related restoration work and post-construction maintenance and monitoring. GHADs are public entities created pursuant to Public Resources Code § 26500 et seq. to finance the prevention, mitigation, and abatement or control of geologic hazards. Following the formation of the GHAD (which is expected by the end of April 2011, pending approval by the Malibu City Council), the TPOA will replace itself with the GHAD as the Project applicant.

Project Description:

The Project as proposed by TPOA would address the geologic hazards at Broad Beach in the City of Malibu, Los Angeles County, associated with beach and dune erosion, flooding and other damage due to anticipated sea-level rise, storms and coastal cliff erosion, and would include the following components:

- Sand Nourishment and Beach Replenishment – Placing high quality beach material to replenish Broad Beach with “dry” sand between the dune system and the shoreline (part of ongoing beach nourishment program);
- Revetment – Burying the existing temporary emergency revetment in the landward edge of the widened, nourished beach. Imported beach quality material would be placed over the existing revetment to create a restored dune;
- Offshore Beach Material Dredging and Transport – Dredging beach compatible material at an offshore site or sites and delivery of the dredged material from a holding vessel via dredge discharge pipeline;
- Upland Beach Material Dredging and Transport – Dredging beach compatible material at an upland site or sites and delivery of the dredged material by truck;
- Dune Building and Restoration – Building a reservoir of sand and restoring dune habitat with native plant species;
- Beach Widening and Public Access Enhancement – Widening the beach to provide enhanced and unprecedented public access and recreational opportunities along Broad Beach.

A detailed project description, location, and potential environmental effects are presented in Attachment 1.

Purpose of Public Scoping Process:

The California State Lands Commission (CSLC) will be the Lead Agency under the California Environmental Quality Act (CEQA), and will prepare an Environmental Impact Report (EIR) for this proposed Project.

The purpose of this Notice of Preparation/Notice of Public Scoping Meeting is to obtain agency and the public's views as to the scope and content of the environmental information and analysis, including the significant environmental issues, reasonable range of alternatives, and mitigation measures that should be included in the EIR. Applicable agencies will need to use the EIR when considering related permits or other approvals for the Project.

Notice of Preparation of a Draft EIR/Notice of Public Scoping Meeting
April 15, 2011

Due to the time limits mandated by State law, written comments must be sent within 30 days and must be received or postmarked by Tuesday, **May 16, 2011**. Please send your comments at the earliest possible date to:

Crystal Spurr, Staff Environmental Scientist
California State Lands Commission
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825
Phone: (916) 574-1814
FAX: (916) 574-1885
email: Crystal.Spurr@slc.ca.gov

NOTE: You are encouraged to submit electronic copies of your comments in Microsoft Word format. If comments are faxed or sent by e-mail, please also mail a copy to ensure that a clean copy is received by this office.

Pursuant to Section 15083, Title 14, Chapter 3, California Code of Regulations, the CSLC will also conduct two public scoping meetings for the proposed Project to receive oral or written testimony at the times and place listed below:

DATE: Tuesday, May 3, 2011
TIME: 3:00 p.m. and 6:00 p.m.
LOCATION: Malibu City Hall, Zuma Room
23825 Stuart Ranch Road
Malibu, California 90265
Telephone: (310) 456-2489

A sign language interpreter will be provided upon advance notification of need by a hard-of-hearing person. Such notification should be made as soon as possible prior to date of the scoping meetings. If you need reasonable accommodation, to conduct business with the CSLC staff conducting the scoping meetings, for a disability as defined by the federal Americans with Disabilities Act and the California Fair Employment and Housing Act, please contact Crystal Spurr at (916) 574-1814 in advance of the scoping meetings to arrange for such accommodation.

If you have any questions or would like a copy of this Notice and Attachment 1, please contact Crystal Spurr at the above address, by phone (916) 574-1814, or e-mail at Crystal.Spurr@slc.ca.gov. Copies of this Notice will also be available at the public scoping meetings and on the CSLC web page: www.slc.ca.gov (under the "Information" tab and "CEQA Updates" link).

Signature: 
Crystal Spurr
Staff Environmental Scientist

Date: April 15, 2011

ATTACHMENT 1

PROJECT DESCRIPTION Broad Beach Restoration Project, Malibu

1. PROJECT DESCRIPTION

The Trancas Property Owner's Association (TPOA), representing most of the property owners along the Broad Beach shoreline, proposes to address the extensive erosion of Broad Beach by privately funding a beach and sand dune restoration project to protect homes and restore the beach for the benefit of the homeowners and the general public. The proposed construction date is fall of 2012 and is anticipated to take a total of three months.

The TPOA and neighboring property owners are in the process of forming a Geological Hazard Abatement District (GHAD) to fund all restoration work and post-construction maintenance and monitoring for the Project. GHADs are public entities created pursuant to Public Resources Code section 26500 et seq. to finance the prevention, mitigation, and abatement or control of geologic hazards. Once formed, the GHAD will have a five-person Board of Directors. These directors will be listed in the GHAD formation documents and will be empowered in accordance with California law and the city resolution. The TPOA Board and the subcommittee charged with completing the Project fully support the GHAD serving as the Project applicant, upon creation of the GHAD, which is expected by the end of April 2011, pending approval by the Malibu City Council.

During the 2009-2010 winter season, high erosion rates and widespread failure of the existing temporary emergency sandbag revetments necessitated permitting and construction of a temporary emergency rock revetment by the TPOA. The revetment was considered the minimum action necessary and the least environmentally damaging alternative to implement the interim shore protection required to halt critical erosion and protect residential structures and septic systems.

The longer term proposed restoration project would incorporate the temporary emergency revetment into the design. The proposed Project would include enhanced beach access for the public, protection of private property for the homeowners and restoration of dune habitat. Components of the proposed Project include the following:

- Sand Nourishment and Beach Replenishment – This would include an ongoing beach nourishment program that would replenish Broad Beach with “dry” sand between the dune system and the shoreline.
- Revetment – Burying the existing temporary emergency revetment in the landward edge of the widened, nourished beach. Imported beach quality material would be placed over the revetment to create a restored dune.

- Offshore Beach Material Dredging and Transport – Dredging beach compatible material at an offshore site or sites and delivery of the dredged material from a holding vessel via dredge discharge pipeline;
- Upland Beach Material Dredging and Transport – Dredging beach compatible material and an upland site or sites and delivery of the dredged material by truck;
- Dune Building and Restoration – This would include building a reservoir of sand and restoring dune habitat with native plant species.
- Beach Widening and Public Access Enhancement – Widening the beach to provide enhanced public access and recreational opportunities along Broad Beach.

Project design estimates indicate the total Project area footprint incorporating beach fill, dune material and dune buffer would cover 1,821,000 square feet (ft²). It is anticipated that a total of 600,000 cubic yards of beach material would be required for the Project. This volume of material would meet the design beach width of 100 feet as well as the restored dune height of +20 feet mean lower low water (MLLW) and crest width of 50 feet.

Two main types of sand sources exist, one from the offshore ocean, and the other from the upland. A sand source investigation was completed in June 2010, which consisted of collection and review of existing data for potential inland and offshore sand sources, and included a recommended approach to identify the optimal sand source(s) for Broad Beach. The proposed offshore sand source locations include Santa Monica (near the former historic Los Angeles River mouth and Ballona Creek), Malibu East (near the relic delta to Malibu Creek), Malibu West (offshore of Corral Canyon), Zuma (offshore from Lechuza Point to Point Dume), Ormond (upcoast of the Point Mugu Submarine Canyon), and Channel Islands Harbor (sand trap north of Channel Islands Harbor). The proposed upland sand source locations include Calleguas Creek, Grimes Canyon Quarry, and Malibu Lake. A sampling and analysis plan to verify acceptability and compatibility of the beach sources is planned for completion in April 2011.

Beach replenishment and dune building operations would include the use of dredge vessels, which would dredge sediment from the offshore borrow sites and transfer the sediment to the proposed receiver site. Two types of dredges may be used, a hopper dredge or a cutter head suction dredge. The dredged material would be delivered from a holding vessel moored offshore of Broad Beach to the fill placement site by a dredge discharge pipeline. Some portions of the discharge pipeline in the ocean would be floating and marked and lighted for navigation safety. The discharge pipeline would be trucked or floated in segments to the appropriate placement locations and assembled using cranes and other equipment. Beaches would be formed by deposition of sand from the dredge discharge line within training dikes, then graded by bulldozers. Since the sand loss rate in the Broad Beach area could average 35,000 cubic yards per year, it is anticipated that Project maintenance would require placing high quality beach material on the Project site within the next 20 years.

1.1 PROJECT LOCATION

Broad Beach is located in the northwest portion of Los Angeles County, in the city of Malibu, California. The Project area is located west of Broad Beach Road (which runs parallel to the Pacific Coast Highway) and is comprised of shoreline fronting approximately 109 homes, spanning from Lechuza Point to Trancas Creek. The location of the proposed Project is shown in Figure 1.

FIGURE 1. Project Vicinity Map – Broad Beach Restoration



1.2 PERMITS AND PERMITTING AGENCIES

In addition to action by the CSLC, as the Lead Agency under the California Environmental Quality Act (CEQA), the proposed Project may require permits and approvals from reviewing authorities and regulatory agencies that may have oversight over aspects of the proposed Project activities, including but not limited to:

Local and Regional

- City of Malibu
- Los Angeles County
- South Coast Air Quality Management District (SCAQMD)

State

- California Coastal Commission (CCC)
- California Department of Fish and Game (CDFG)
- California Department of Transportation (Caltrans)
- Los Angeles Regional Water Quality Control Board (LARWQCB)
- State Water Resources Control Board (SWRCB)

Federal

- National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NOAA Fisheries Service)
- U.S. Army Corps of Engineers (Corps)
- U.S. Coast Guard (USCG)
- U.S. Fish and Wildlife Service (USFWS)

2. SCOPE OF THE EIR

Pursuant to CEQA Guidelines section 15060, the CSLC staff conducted a preliminary review of the proposed Project. Based on the potential for significant impacts resulting from the proposed Project, an EIR was deemed necessary. A preliminary listing of issues and alternatives to be discussed in the EIR is provided below. Additional issues and/or alternatives may be identified at the public scoping meeting, and in written comments, as part of the EIR process. The CSLC invites comments and suggestions on the following significant impacts proposed for discussion in the EIR.

Four designations are used when examining the potential for impacts according to CEQA issue areas. These designations are:

Potentially Significant Impact (Class I): Any impact that could be significant, and for which no mitigation has been identified or implemented. If any potentially significant impacts are identified and cannot be mitigated, a Statement of Overriding Considerations is required should the proposed Project be approved.

Less-Than-Significant Impact with Mitigation Incorporated (Class II): Any impact that could be significant, but which requires mitigation to reduce the impact to a less-than-significant level. Impacts in this category are otherwise considered potentially significant impacts, but ones for which mitigation measures have been designed and would be enforced in order to reduce said impacts to below applicable significance thresholds.

Less-Than-Significant Impact (Class III): Any impact would not be considered significant under the CEQA relative to existing standards.

Beneficial Impact (Class IV): The Project would provide an improvement to an issue area in comparison to the baseline information.

The estimations of impact levels used for this Notice of Preparation are based solely on preliminary documents and do not preclude findings of significance that would be made

during the preparation of the EIR, including findings that could change the significance of an impact and how it would need to be addressed within the EIR.

2.1 Currently Identified Potential Environmental Effects

The following provides information on the currently identified issues that may have potentially significant environmental effects.

2.1.1 Aesthetics

Impacts to aesthetics would be short-term impairment of views due to construction dredging and beach replenishment activities. Some construction activities could take place at night and may require the use of lighting, which could be visible at a long distance.

The proposed Project's result of long-term beach enhancement would be considered beneficial and not result in any aesthetic impacts.

2.1.2 Air Quality and Greenhouse Gas (GHG) Emissions

The EIR will analyze potential impacts to air quality from construction of the proposed project. The only operational emissions associated with the Project would be the potential maintenance requirements for placing high quality beach material on the Project site every 10 years.

Activities associated with the short-term construction of the Project would generate criteria air pollutants and GHG emissions from the operation of construction equipment. The primary source of the long-term operational impacts of the proposed Project would be from the maintenance of Broad Beach.

The Project site is located in an area regulated by the SCAQMD. The environmental analysis of the proposed Project will evaluate emissions estimates against applicable significance criteria in accordance with SCAQMD Guidelines.

Estimated Project emissions would also need to demonstrate General Conformity and conformance with the State Implementation Plan.

2.1.3 Biological Resources

The existing vegetation adjacent to the Project area is primarily non-native iceplant (*Carpobrotus edulis*) and jubatagrass (*Carthageria Jubata*) and other ornamentals. Some areas of remnant dune habitat remain between the rock revetment and adjacent private property. The existing dune habitat will be mapped and discussed in the EIR. Sensitive habitats in the intertidal and shallow subtidal off Broad Beach include kelp beds, surfgrass, rock intertidal, subtidal reefs and eelgrass. The western snowy plover may forage and grunion may spawn on Broad Beach.

Direct and indirect impacts from the proposed Project on biological resources will be assessed in the EIR. The potential impact of proposed Project activities on federally or state-listed species or species proposed for listing will be addressed in the EIR.

Offshore beach material dredging would result in turbidity, noise, and disturbance effects with the potential to affect organisms or habitats. There could also be some direct uptake (entrainment) of organisms in the suction field generated by the hydraulic dredge. Vessel traffic from the borrow sites could result in the potential for vessel collisions with marine mammals and turtles encountered at sea.

Direct impacts to marine biological resources may occur through burial or smothering of benthic organisms during sand placement at the beach, equipment damage to habitats or animals during construction activities, or removal of sediment and organisms at borrow sites during dredging. Discharge lines and buoy anchors necessary for dredging operations may disturb sensitive benthic habitat. Vehicular access to the beach could result in direct impacts to federally listed or state-listed endangered or threatened species or habitat. Equipment operation noise and activities have the potential to disturb shorebirds, gulls, and other coastal birds, such as the federally threatened western snowy plover (*Charadrius alexandrinus nivosus*), that may forage or rest on the beach. Artificial night lighting during construction activities has the potential to disturb or attract wildlife.

Turbidity has the potential to indirectly impact plankton, fish, marine mammals, kelp, and vegetated reefs. Turbidity could be minimized by the construction of training dikes that would promote settlement of sediment on the beach and lower the amount of suspended sediment within return waters. Indirect impacts may result from decreases in marine water quality associated with dredging and sand placement activities, sediment transport related to movement of sands from Broad Beach, or interference of normal movement or behaviors of animals due to construction activities or operational effects. Indirect impacts may result in reduction of habitat quality, interference with foraging or impaired growth, diminished reproduction, or interruption of wildlife movement. Nearby sensitive habitats such as kelp beds, surfgrass, rock intertidal, subtidal reefs and eelgrass may be vulnerable to direct impacts from construction as well as indirect impacts from turbidity and reduced water quality.

Potential benefits of the proposed Project will also be discussed in the EIR, such as a wider and more persistent beach supporting functions for fish and wildlife more effectively than beaches where habitat quality is more variable, as a result of seasonal sand erosion and accretion cycles. A wider sandy area may prove favorable to spawning California grunion (*Leuresthes tenuis*). Also, the beach's dune habitat, designated as an Environmentally Sensitive Habitat Area (ESHA) in the City of Malibu's Local Coastal Program (LCP), is currently dominated by non-native invasive plant species, primarily iceplant and jubatagrass and restoration of this habitat to a more diverse and native state could provide beneficial impacts to related species.

Offshore beach material dredging and transport could also affect commercial and recreational fishing. Project activities are anticipated to take a total of three months. The EIR will evaluate any impacts to local commercial and recreational fishing activities.

2.1.4 Cultural Resources

The potential for the presence of cultural resources within each proposed borrow site will be evaluated in terms of historical and archaeological significance. Dredging activities could impact unknown paleontological resources. If resources are identified, the areas shall be avoided and/or evaluated in consultation with the State Historic Preservation Officer (SHPO) and the CSLC.

2.1.5 Geology and Soils

Placement of sand at Broad Beach could impact the coastal geologic process, such as the natural littoral transport of beach material. Five offshore borrow areas have been identified as potential sand sources for beach replenishment (Santa Monica, Malibu East, Malibu West, Zuma, and Ormond). Deepening of the proposed offshore sand dredge site, which would occur over the course of two to four months, could alter the local bathymetry. The EIR will also address any impacts associated with the two most likely upland sand source sites (Calleguas Creek and Grimes Canyon Quarry).

2.1.6 Public Health and Safety / Hazards and Hazardous Materials

During implementation of active construction, Broad Beach would be closed to public access to prevent unsafe conditions. Although not anticipated, hazardous or dangerous materials may be found in the dredge materials. In this event, dredging and replenishment activities would stop and evaluations would determine the next course of action.

Marine vessel traffic and safety concerns will be discussed in this section of the EIR. Potential public health related hazards include maintaining vessel safety through buffer areas around the dredges in the offshore sand source sites, the potential for accidental discharges from collisions with other vessels, and the potential for accidental releases of fuels or hazardous materials from construction equipment.

2.1.7 Hydrology and Water Quality

The EIR will address potential impacts associated with beach material dredging operations (e.g., as toxicity) and bioaccumulation of pollutants to levels that would be harmful to aquatic life or humans. The potential for elevated turbidity, discoloration, and reduced water quality could occur due to dredging. The offshore hydraulic dredging could result in turbidity plumes and suspended sediments. The operation of dredges and support vessels could result in accidental releases of hazardous materials into the water. The potential also exists for accidental discharges from collisions with other vessels. The EIR will discuss the need for a Spill Prevention Control and Counter

Measures Plan (SPCC) and best management practices (BMPs) to prevent long-term degradation of water quality.

The severe erosion problem threatened private property septic systems and leach fields along this stretch of the beach. A discussion of the potential issues with existing septic systems and leach fields with relation to the potential for releases affecting water quality and beach closures will be discussed in the EIR.

The EIR will also evaluate the potential effects of eventual sea-level rise on the Project. Because it is reasonably foreseeable that the beach will eventually be subjected to higher sea level conditions, the effects of the modified beach and its continued maintenance under those conditions are also reasonably foreseeable and must be considered in the Project's CEQA analysis.

2.1.8 Land Use, Planning and Recreation

Due to public safety concerns associated with heavy equipment operations on the beach, replenishment operations would require that the beach and offshore area be closed temporarily to the public during construction. The proposed Project could also result in potential temporary impacts to recreational resources of the area during offshore dredging, such as surfing, fishing, and boating. By scheduling construction for the fall and winter, when public use of the beach is lowest, the Project will lessen impacts to beachgoers.

No significant, long-term impacts are expected to occur to recreational activities. Following project completion, recreation at Broad Beach would resume and is expected to increase. The social and economic effects of the action are anticipated to be beneficial. The nourished beach would have a wider and larger sand area, which would provide greater recreational opportunities.

2.1.9 Noise

Construction activities would temporarily generate levels of noise that could substantially increase ambient noise levels in the vicinity of the proposed Project. Dredging activities and beach replenishment would generate noise that could disturb biological resources and residents of homes in the proposed Project area. Any nighttime or weekend work would need a variance from the local noise ordinance.

2.1.10 Population and Housing

The Project as proposed would not result in housing construction and no increase in population, so no impact to population and housing is expected. However, there would be impacts to housing if the Project was not approved (No Project Alternative) because the septic systems could fail and the homes foundations would start to be washed out.

2.1.11 Utilities and Service Systems

The EIR will address any potential for impacts to public and private utilities and service systems.

2.1.12 Transportation / Traffic

Two likely upland sand source sites (Calleguas Creek and Grimes Canyon Quarry) have been identified for the proposed Project that could result in truck trips to deliver the sand to the beach, which may require four to nine months. The number of truck trips is estimated to be between 30,000 and 60,000 depending on the sand quantity and the size of the truck. The increased truck trips would lead to potential impacts from air emissions, traffic, roadway damage, and noise. It is anticipated, however, that the majority of the material will come from offshore sources and be pumped directly onto the beach. The EIR will address the issues associated with dredging, transport, and placement of beach material onto Broad Beach.

After completion of the proposed Project, traffic could potentially increase, as Broad Beach would become more attractive for recreational purposes.

2.2 SPECIAL IMPACT AREAS

2.2.1 Cumulative Impacts

The CEQA requires an examination of the potential for a Project to have cumulative impacts when considered in conjunction with other Projects proposed and/or approved within a region. The Cumulative Projects Study Area for this Project is presently defined as proposed and approved projects in or near the city of Malibu, Los Angeles County. The EIR will discuss the cumulative impacts of the proposed Project, in conjunction with other approved and reasonably foreseeable projects in the general area.

2.2.2 Growth-Inducing Impacts

The CEQA requires a discussion of the ways in which a proposed Project could be an inducement to growth. The State CEQA Guidelines (section 15126.2(d)) identify a project to be growth-inducing if it fosters or removes obstacles to economic or population growth, provides new employment, extends access or services, taxes existing services, or causes development elsewhere. The EIR will contain a discussion of potential growth-inducing impacts of the proposed Project.

2.2.3 Environmental Justice

The CSLC developed and adopted an Environmental Justice Policy to ensure equity and fairness in its own processes and procedures. This policy stresses equitable treatment of all members of the public and commits to consider environmental justice in its processes, decision-making, and regulatory affairs which is implemented, in part,

through identification of, and communication with, relevant populations that could be adversely and disproportionately impacted by CSLC projects or programs, and by ensuring that a range of reasonable alternatives is identified that would minimize or eliminate environmental impacts affecting such populations.

This section of the EIR will make a determination of the consistency of the proposed Project with the CSLC Environmental Justice Policy, and analyze the distributional patterns of high-minority and low-income populations on a regional basis. The analysis will focus on whether the proposed Project would have the potential to affect area(s) of high-minority population(s) and low-income communities disproportionately.

It is expected that the proposed Project would not have a disproportionate impact on minority populations or low-income populations because the area does not include disproportionately high minority populations or low-income populations compared to the contiguous cities or the county.

2.3 ALTERNATIVES

2.3.1 Preliminary Listing of Alternatives to be Addressed in the EIR

In accordance with CEQA Guidelines section 15126.6, an EIR must “describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.” The CEQA Guidelines also require that a No Project Alternative be evaluated, and that under specific circumstances, an environmentally superior alternative be designated from among the remaining alternatives.

The development of this portion of the EIR will use an alternative screening analysis which will: evaluate a reasonable range of alternatives; provide the basis for selecting alternatives that are feasible; reduce significant impacts associated with the proposed Project; and provide a detailed explanation of why any alternatives were rejected from further analysis.

The alternatives analysis may identify, in addition to the No Project Alternative, one or more of the following for further development. Additional alternatives may be included depending on information received during the public scoping and as a result of the environmental analysis.

2.3.2 Alternative 1 – Retention of the Temporary Emergency Revetment in its Current Location

This alternative would retain the temporary emergency revetment that was constructed during the 2009-2010 winter season in its current location with no beach nourishment or dune restoration.

2.3.3 Alternative 2 – Retention of the Temporary Emergency Revetment with Further Modifications

The temporary emergency revetment that was constructed during the 2009-2010 winter season was designed with the intent that it could be augmented in the future with one or two outer layers of properly sized armor stone. This alternative would analyze the impacts of augmenting the revetment with armor stone and sand and extending and possibly deepening the revetment toe.

2.3.4 Alternative 3 – Beach Nourishment and Dune Restoration with Sand Retention Reefs

This alternative would include sand retention reefs designed to reduce future beach nourishment requirements, enhance the near shore environment and provide improved surfing conditions. This alternative assumes five 500-foot wide reefs designed to reduce the sediment transport by 50 percent or more. This alternative may be analyzed as a stand-alone element that could be added to either the proposed Project or Alternative 1.

2.3.5 No Project Alternative

The No Project Alternative would include removing the temporary emergency revetment that was placed on Broad Beach in 2010. Under the No Project Alternative, no dredging or beach replenishment activities would occur, and erosion at Broad Beach would continue. The existing septic systems and portions of the most seaward homes would continue to be at risk of being damaged or lost in any single large storm event, and will likely be impacted by normal waves and tides. This alternative would not serve to enhance property protection or recreational opportunities at Broad Beach. In addition, if sand replenishment does not occur, then no additional sand would be available for transport along the Los Angeles County coastline.